# AFRICAN
# WIRELESS
## COMMUNICATIONS
# YEARBOOK 2022

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**Doreet Oren,**
senior director product and solution marketing, Gilat Satellite Networks

Gilat Satellite Networks globally executes its vision of calling for the right of all people to be connected. Sub-Saharan Africa is an important continent where Gilat is proud to enable broadband connectivity to the most remote regions.

The COVID-19 pandemic taught us and emphasized the dramatic difference between those who are connected and those who are not. The inequality and digital divide became more pronounced as areas lacking connectivity suffered more in all walks of life.

Online health services were not available to those who are not connected, and the lockdowns which attempted to control the spread of the virus affected business, education, and social interactions. The ability to maintain such basic activities was severely hampered or lost completely due to the lack of broadband connectivity. We now understand even more clearly and hear additional voices declaring internet connectivity as a basic human right.

During 2022 Gilat saw a surge of post-COVID-19 activity in establishing reliable, affordable communication in rural areas. Gilat is the global leader in cellular backhaul over satellite with about 75% market share in 4G networks.

Gilat works closely with telcos and mobile network operators (MNOs) to extend terrestrial networks beyond the reach of fibre to areas where it is not feasible or prohibitively expensive to lay out terrestrial infrastructure. Satellite backhaul provides a cost-effective solution to rapidly grow the network to reach the unserved or underserved.

In serving sub-Saharan Africa, Gilat is a longtime partner of Africa Mobile Networks (AMN). AMN operates the largest satellite cellular backhaul network with Gilat's SkyEdge II-c platform enabling coverage extension to a dozen countries in sub-Saharan Africa. The network serves Tier-1 global MNOs allowing reach to new subscribers and better service in the most rural regions.

This year, with the growing demand in Africa, Gilat collaborated with a cellular/wireless network provider, who already operates in several countries in Africa. Powered by Gilat's cellular backhaul over satellite solution, additional coverage will be provided to the rural regions in Africa.

Furthermore, we have been working closely with our partner, Intelsat, and closed a multimillion-dollar deal to answer the connectivity needs in the DRC. Congo is the second-largest nation

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in Africa with over 90 million residents, with a tremendous need for connectivity, and where a terrestrial solution is not an option. Here, Gilat's SkyEdge II-c platform will provide cellular backhaul over satellite starting with about 1,000 remote sites of a Tier-1 MNO. Gilat's cellular backhaul technology is widely chosen due to the following factors:

• Fast and reliable for cellular coverage extension, emergency response and business continuity
• End-to-end encryption with patented layer 2/3 embedded acceleration achieving 1Gbps to the handset
• Enabling advanced edge computing for IoT

aggregation and caching in remote 5G networks
• Satellite network integration with cloud infrastructure and SDN/NFV core for simplified operations
• SkyEdge IV Aquarius VSATs with > 2Gbps throughput for demanding 5G applications
• Extending 5G private networks to any location

Gilat has been leading the satellite communication market for over 35 years, with innovative technology operating in all regions of the world. The cross section of global expertise, local presence, vast experience working with MNOs and outstanding support and delivery capabilities makes Gilat an ideal match for its partners in Africa. ∎

**Looking ahead:** The satellite industry is undergoing tremendous innovation and change. The launch of non-geostationary (NGSO) constellations, very high throughput satellites (VHTS) and highly configurable software defined satellites are offering the industry unprecedented increases in bandwidth and flexibility. But while these new satellites and digital payloads offer a profound step up in capability, they are also introducing far more complexity, and growing the need for ground-breaking deep technology and tight integration between ground and space.

Disruptive innovation is required to provide the needed higher throughput and flexibility. A major enabler of this revolution is the ability to provide orchestration and harmonization between the ground equipment and the whole new software defined space. This was the driving force in the development of SkyEdge IV, Gilat's latest ground segment technology. SkyEdge IV is a multi-orbit, multi-service platform that enables, together with software-defined satellites (SDS), the creation of programmable software-defined networks (SDN) that support on-the-fly changes

to optimally address dynamic network changes.

SkyEdge IV is a multi-service platform providing solutions for multiple applications required in sub-Saharan Africa and the MENA (Middle East North Africa) region. Gilat sees an increase in the need for cellular backhaul over satellite to reach the rural and ultra-rural regions and expects to continue to provide this required need for connectivity. Gilat also sees a renewed interest in education projects, sponsored by governments and others, to increase school connectivity and promote e-learning opportunities for a growing need of the population.

Gilat has already teamed up with the satellite operators such as SES and Intelsat to deliver on the promise of the next generation of satcom. Gilat's SkyEdge IV platform was selected by SES as the ground segment for the O3b mPOWER constellation and is working together with SES to bring upon the successful launch next year. Gilat is excited to be working next year with its partners to fulfill its vision of the right of all people to be connected.

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**Leading the Elastix Space Era**

**SkyEdge IV**

**Cellular Backhaul**

**Enterprise**

Gilat Satellite Networks Ltd. (NASDAQ: GILT, TASE: GILT) is a leading global provider of satellite-based broadband communications.

With over 30 years of experience, we create and deliver deep technology solutions for satellite, ground and new space connectivity and provide comprehensive end-to-end solutions and services, powered by our innovative technology. We believe in the right of all people to be connected and are united in our resolution to provide communication solutions to all reaches of the world.

Delivering high value solutions, our portfolio is comprised of a cloud-based platform and high performance satellite terminals designed to work in harmony with satellite constellations, including Very High Throughput Satellites (VHTS) and Software-Defined Satellites (SDS) in multiple orbits; high performance Satellite On-the-Move (SOTM) antennas; and highly efficient, high-power Solid State Power Amplifiers (SSPA) and Block Upconverters (BUC).

Gilat's comprehensive solutions support multiple applications with a full portfolio of products to address key applications including broadband access, mobility, cellular backhaul, military, government, and enterprise, all while meeting the most stringent service level requirements. For more information, please visit: www.gilat.com or follow Gilat on LinkedIn, Facebook and Twitter. Contact us here

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